DOCUMENT RESUME

ED 290 288 EC 201 751

AUTHOR Adams, Paul R.; And Others
TITLE Mainstreaming and Teacher Competency: Some Concerns about the Adequacy of Teacher Training.
PUB DATE 24 Aug 87
NOTE 40p.; In: Striefel, Sebastian and Others; Grouping Handicapped and Non-Handicapped Children in Mainstream Settings. The Functional Mainstreaming for Success (FMS) Project. Final Report-Part 3; see EC 201 748.
PUB TYPE Information Analyses (070) -- Viewpoints (120)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Community Programs; *Disabilities; Elementary Secondary Education; *Inservice Teacher Education; *Mainstreaming; *Needs Assessment; Preschool Education; Program Development; Program Effectiveness; *Teacher Education

ABSTRACT

The paper is a product of the 3-year project, "Functional Mainstreaming for Success," designed to develop a model for instructional mainstreaming of handicapped children (3-6 years old) in community settings. Evidence is presented of major competency deficiencies in both the pre-service and inservice training of regular teachers being asked to mainstream handicapped students. Evidence of inadequate teacher training programs comes from teacher surveys, examination of State Education Agency requirements, and the literature on revision of teacher training programs. Suggestions for closing the competency gap include: preliminary steps (e.g., recognizing the extent of change needed), reformulating preservice training, and upgrading inservice training. Also listed are 15 systemic changes needed if mainstreaming is to be successful. (Author/DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED290288

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Mainstreaming and Teacher Competency:

Some Concerns about the Adequacy of Teacher Training

Paul R. Adams, John Killoran, Maria Quintero, and

Sebastian Striefel

Utah State University

Running Head: Mainstreaming and Teacher Competency

EC 201751

BEST COPY AVAILABLE

Abstract

Evidence is presented of major competency deficiencies in both the pre-service and inservice training of regular teachers. The resulting teacher "competency gap" has been highlighted by efforts to mainstream students who have handicaps. Evidence of the inadequacy of most current teacher training programs comes from multiple sources, including teacher surveys, examination of State Education Agency (SEA) requirements, and the extensive effort expended in the past decade in revising teacher training programs. Specific teacher competencies are identified and ideas are discussed for closing the competency gap. These include: preliminary steps, (e.g., recognizing the extent of change needed), reformulating preservice training, and upgrading inservice training. The authors also identify fifteen "systemic changes" that must occur if mainstreaming is to be successful.

Mainstreaming and Teacher Competency: Some Concerns About the Adequacy of Teacher Training

This manuscript addresses one of the most critical issues in education today: that is, a distinct gap percentage exists between the knowledge and skills teachers should have, and those they actually demonstrate. This competency gap has been starkly highlighted in the last decade by the effort to individualize education for all students, with emphasis on mainstreaming students who have handicaps (Common Body, 1980).

This paper should not be viewed as being critical of teachers. The criticisms are not directed toward teachers, but are indictments of the level and quality of training, both preservice and inservice, that teachers have received, or are currently receiving. The majority of teacher training programs are no longer adequate to give educators the increasingly broad range of competencies that are required for effective teaching, especially for teaching students who are being mainstreamed.

Evidence of a Competency Gap

Inadequate SEA Guidelines

A recent study (Ganchow, Weber, & Davis, 1984) indicated that less than half of state education agencies (SEA's) had

revised certification requirements to prepare regular eductaion teachers to meet the intent of P.L. 94-142. Their study showed that, "14 SEA's had no specific certification requirements; 17 SEA's required one course on exceptionalities; 2 SEA's had one required course pending; 2 SEA's had a two-course requirement; 7 SEA's had specific guidelines; and 8 SEA's made general references to competencies about handicap teaching students who are on their guidelines" (p. 75). Ganchow et al (1984) raise the question of how committed SEA's are to the task of ensuring quality educational experiences for children who are exceptional learners. This criticism is especially cogent when one realizes that 29 states have either no course requirements at all, or else only non-mandated guidelines. Ganchow et al (1984) conclude that, "Although progress is apparent, inadequacies remain in preparing regular teachers to educate exceptional individuals in their classrooms" (p. 75). Similar concerns about the adequacy of teacher preparation have been voiced previously by others (Gearhart & Weishahn, 1980; McLauglin & Kelly, 1982; Keogh & Levitt, 1976).

Outdated Preservice Training

The extensive outcome of A Common Body of Practice for Teachers: The Challenge of Public Law 94-142 to Teacher Education (American Association of Colleges of Teacher Education, AACTE, 1980), is another indicator of the perceived gap between current and requisite levels of teacher competency. This

monograph indicates that teachers, as a group, have not had the type of training they need, that teaching has become more complex, and that they should upgrade their skill levels. The teacher competencies identified are those that teachers, as a group, should have, not those they actually demonstrate. The spirit of this "challenge" is not one of derogation, but encouragement to increase the professional status of teaching by upgrading minimum competencies for all teachers. To accomplish the goals of Public Law 94-142 can be achieved only if teacher competencies are improved.

> Teacher preparation in America has never been optimal; it always has been minimal. The level of professional expertise developed in preparation programs is far below that needed for effectiveness, even in the most favorable teaching situations. It is disastrously inadequate for meeting the challenges of a delivery system in which all children, exceptional or otherwise, share school learning environments with the nonhandicapped school population. (A Common Body of Practice, 1980, p.4).

An "Artificial Gap" Between Regular and Special Education

Changing the preservice training of teachers to prepare them more effectively for mainstreaming, has been advocatged (Corrigan, 1978; Masat & Schack, 1981; and Stamm, 1980). The

intent of the "Dean's Grants Projects" was to support innovative restructuring of teacher education programs (Behrens & Grosenick, 1978; Grosenick & Reynolds, 1978). It has been suggested that, when dealing with students who are mildly handicapped, the knowledge and skills required are virtually the same for regular and special educators (Crisci, 1981; Haisley & Gilberts, 1978; Kunzweiler, 1982; Stainback & Stainback, 1984). These authors see the "artificial gap" between regular and special education as one that must be eliminated. This is not a suggestion that special education programs be eliminated or be subsumed by regular programs, for there will still be a need for trained special educators to deal with more severely handicapped students, and to serve as resource specialists or trainers for regular educators. What it does mean is that both groups of educators need certain core skills, especially for teaching students with mild handicapping conditions, and for individualizing instruction, that has previously been the primary domain of special educators. Even revising college curricula to include a single special education course for regular educators has typically been "fiercely resisted" (Martin, 1974; Vaac, 1978, p.42). Indeed, Vaac (1978) surveyed educational institutions accredited for teacher education and reported that while 83% of those surveyed agreed that teachers should take at least one special education course, "only 34% of elementary and 24% of

secondary teacher preparation programs required courses in special education" (p.43).

Teacher Attitudes Toward Mainstreaming

Several authors (Baker & Gottlieb, 1980; Jones, Jamieson, Moulin & Towner, 1981; Kaufman & Hallahan, 1981; Raver, 1980; Rule, Killoran, Stowitschek, Innocenti, Striefel & Boswell, 1984; Salend & Johns, 1983; and Taylor, 1982) have noted that teacher attitudes are critical in determining if integration will work. Again, some surveys have revealed strong teacher opposition to mainstreaming (Gickling & Theobald, 1975; Hudson, Graham & Warner 1979) with concern expressed by teachers about the possibly detrimental effect of mainstreaming on the education of non-handicapped students (Hudson et al, 1979; Johnson, 1979). Jones, et al (1981) indicate, however, that much of the existing research on attitudinal change is methodologically flawed, and sound research is greatly needed. Horne (1979) found, in another literature review, that teachers had generally negative attitudes toward "special needs" students. The group of students "least preferred" by regular educators is the group labeled "educable mentally retarded" (EMR) (Shotel, Iano, & McGettigan, 1972). This finding was reconfirmed nearly a decade later by Vandivier & Vandivier (1981) who found that not only were students classified EMR viewed less favorably (compared to students identified as learning disabled, or emotionally disturbed), but that this held true regardless of the severity of the disability. In contrast,

Stainback and Stainback (1982) and Stainback, Stainback, & Dedruck, (1983) found, that teacher attitudes toward even the severely retarded can be positively influenced by training. In addition, Stainback, Stainback, Strathe, & Dedrick, (1983) point out the need for "follow-up and continued support of teachers after initial changes are affected" (p. 208). The gist of the research and literature reviews is that teacher attitudes about mainstreaming are critical, and can be influenced with specific training addressed toward positively influencing them.

Inadequate Inservice Training Programs

The importance placed on developing new inservice programs highlights the need to upgrade existing skills and to develop new skills that meet the challenges inherent in mainstreaming. Zigmond & Sansone (1981) see inservice as one method for bringing about needed changes in knowledge, skills, and attitudes. Leyser et al (1982) state in their review that "a crucial need to offer teachers, as well as other school personnel, additional training in the form of courses, workshops, seminars, practica, and experiences to prepare them to work with handicapped students" exists (p.8). Zigmond & Sansone (1981) conclude that, "teacher behaviors change in very small steps, and that for these changes to occur teachers must have guided instruction, consultation, and on-going support" (p.110). Other authors also support the need for quality inservice training to help teachers develop the skills needed for mainstreaming (Crisci, 1981; Haring &

Billingsley, 1984; Peterson, 1983; Powers, 1983; Ringlaben & Price, 1981; Schwartz, 1984; Wilcox, 1977). In addition, inservice training has been identified as a specific way to influence teacher attitudes, (Leyser, Abrams, and Lipscomb, 1982; Williams & Algozzine, 1979).

Teacher Surveys Regarding Mainstreaming

The most direct, most persuasive, and most vital information about the perceived "competency gap" comes from teachers themselves. Crisci (1981) cites several authors (Byford, 1979; Dixon, Shaw, & Bensky, 1980; Paul & Warnock, 1980; & Perkins, 1979) to support her contention that much of the negative attitude about mainstreaming expressed by teachers, "stems from fear and lack of clarification of the responsibilities of and competencies needed by regular education teachers and special education personnel" (Crisci, 1981, p.175). Surveys of teachers indicate that many believe themselves to be inadequately prepared to deal with the broad range of student needs, problems, handicaps and challenges presented by mainstreaming (Crisci, 1981; Flynn, Gack & Sundean, 1978; Gickling & Theobald, 1975; Middleton, Morsink, & Cohen, 1979; Ringlaben & Price, 1981). Many teachers are not only cognizant of the gap, they are asking for additional training to upgrade existing competencies and to develop new ones (Alexander & Strain, 1978, Leyser, et al, 1982; Payne & Murray, 1974, Stephens & Braun, 1980, Vaac & Kirst, 1977).

Summary of Evidence Indicating A Competency Gap

In summary, the published literature supports the conclusions that presently a large discrepancy exists between current levels of teacher competency and the level needed for successful mainstreaming. Supporting evidence includes: (1) over half of state still do not require even a single course on exceptionalities; (2) teachers are inadaequately trained; (3) much effort has been devoted to restructuring teacher training programs to better train teachers and to imporive the quality of preservice training and (4) because negative attitudes held by regular teachers toward students who have handicaps affect successful mainstreaming negatively. Training programs must deal with the issue of attitude change. Surveys of teachers indicate that a considerable number believe themselves inadequately prepared to teach students who are even mildly handicapped. Teachers are not only aware of the competency gap, but many are requesting help to bridge it.

Closing the Competency Gap

Importance of Teacher Training

This competency gap is one of major proportions, one which will not be rectified by a two-hour inservice. Though many teachers are aware of the gap, often few local resources are available for obtaining help. Where are the "master-teachers", who are experienced in mainstreaming students with a broad range of disabilities? Where are the universities, who are ready to

train practicing teachers in the competencies they need to successfully mainstream students with mild to severe handicaps. Where are the resource specialists who are able to come into the classroom to help teachers cope day to day with new and complex challenges? How do teachers get guided training under the tutelage of knowledgeable and experienced trainers who know how to mainstream, and who also know how to teach their colleagues effectively?

The importance of teacher training difficult to overstate. Peterson (1983) offers the following thought-provoking insights:

> No matter how progressive and innovative an idea, its use becomes limited when there are few practitioners who understand and can properly implement the idea . . . Well trained personnel are at the heart of a successful mainstreaming effort" (p.25).
>
> Personnel training is perhaps the most important component of successful mainstreaming. To enroll handicapped children in regular settings or normally developing children in special settings without adequate staff preparation is to invite failure for both staff and children. Individuals asked to assume responsibility for youngsters with whom they have limited or no experience and little formal preparation are themselves handicapped" (p.42).

Preliminary Steps in Closing the Competency Gap

Acknowledgement of the Problem - Narrowing or closing the gap between current and needed competencies requires at least three preliminary steps. First is the honest acknowledgement that a gap does indeed exist. This gap must be recognized not only by teachers (who may well have the least difficulty), but by principals, district and state administrators, educators in colleges of education, special education trainers, and legislators. Unless, and until, such individuals and groups frankly confront the reality that many teachers, administrators, and teacher trainers lack some of the skills essential for mainstreaming, the competency gap will not be closed.

Recognition of the Extent of Change Required - Second, there must be a recognition of the extent of change required by mainstreaming (Peterson, 1983). Including children with handicaps in a regular class, then proceeding to teach in exactly the same way, as if nothing had changed, will not work - not for the students (both those with and those without handicaps), and certainly not for the teacher. Mainstreaming is not merely including new students in the classroom; it entails the changes necessary to effectively meet the needs of all the students, including those with a variety of handicaps. Teachers, teacher trainers, and administrators who fail to recognize this fact are setting themselves and their students up for failure (Peterson, 1983). Some of the needed changes require learning new

competencies; some changes consist of using already developed skills in new ways and in new contexts. Diamond (1979) suggests that mainstreaming "promises more than our current system can possibly deliver at this time" (p. 247). She suggests that if mainstreaming is to work there must be substantial changes in teaching practices, and that "modification of the mainstream is long overdue" (p. 250).

Most people are resistant to change, and teachers are no exception (Hall, Loucks, Rutherford, & Newlove, 1975). Even those teachers who favor the concept of mainstreaming will have to struggle with this aspect of their own humanness. Those who have, through many years of experience, developed a large repertoire of effective teaching methods will find that they, too, must make changes. But as Blackhurst (1982) points out, competent teachers, though they do have to make some changes, will still have an advantage. "From a competency standpoint, the most important factor is whether or not a person is a good, competent teacher in general. If a teacher is responsive to individual differences and can teach, then mainstreaming will be successful." (Blackhurst, 1982 p. 143).

Commitment to Change - Finally, after acknowledging the reality of the competency gap, and recognizing the extent of change entailed in mainstreaming, there must be a commitment to do something about it. This commitment must come from individual teachers. It is they who ultimately shoulder the day-to-day

responsibility for educating students. But their individual and group commitment to close the competency gap can be rendered ineffectual if they are not supported by local and district administrators (Cochrane & Westling, 1977; Crisci, 1981; Johnson, 1979). Administrators' attitudes toward mainstreaming are critical, (Taylor, 1982) particularly those of principals' (Payne & Murray, 1974). If principals do not actively encourage teachers' efforts to secure training, if they do not facilitate interactions between regular and special education staff, provide necessary support services, and promote the concept of mainstreaming in the school and community, then teachers cannot effectively mainstream (Cochrane & Westling, 1977; Crisci, 1981; Johnson, 1979).

However, the commitment cannot stop with teachers and local administrators. State education associations, (Ganchow et al., 1984), play a significant role in determining the certification requirements that ultimately guide universities in establishing their teacher training programs. SEA's must develop guidelines that addreses current training needs, rather than continue promulgating outdated, inadequate guidelines which perpetuate dual systems of teacher training.

The universities must then extend their commitment to mainstreaming. It is to the colleges of education and departments of special education that many teachers and administrators will look when seeking additional training. If

the universities are not fully meeting, in four academic years, the training needs of preservice teachers (AACTE, 1980; Behrens & Grosnick, 1978; Boyd & Jiggets, 1977; Corrigan, 1978; Kunzwiler, 1982, Leyser et al 1982; Maple, 1983; Masat & Schack, 1981; Middleton et al, 1979; Redden 1976; Sprinthal, 1978; Stamm, 1980; Vaac, 1978) one wonders what they have to offer practicing teachers. The knowledge and expertise is available to do much of the needed training, but it will necessitate change in how universities interact with teachers "in the field". It will require innovative approaches to training, such as those developed by funded Deans' Grants Projects (Behrens & Grosenick, 1978). Innovative programs have been developed and now need to be implemented.

Finally, concerned parents must organize themselves and make their concerns heard. Parents and consumer groups are the single most powerful group for advocating and producing changes in the education system. It is the parents who pay the taxes that are used to establish and maintain school programs. Parents, as voters, also elect the school board members and legislators. By uniting for a common cause they become a force which must be listened to and satisfied. Parent groups and other advocates for children who have handicaps are directly responsible for the initiation of federal programs such as PL. 94-142. Parents must be educated in what is necessary to make mainstreaming work.

Once committed, they can become staunch allies in the effort to secure essential changes.

The commitment of all the preceding individuals/institutions is essential, but the stark reality of tight budgets and limited funds for training presents a perennial problem. It is, at least in part, by legislative mandate that mainstreaming is occurring. It seems incumbent upon legislators to provide funding that will enable state and district school administrators to secure the training so vital for successful mainstreaming. To reiterate Peterson's (1983) observation, "No matter how progressive and innovative an idea, its use becomes limited when there are few practitioners who understand and can properly implement the idea . . . Well trained personnel are at the heart of a successful mainstreaming effort" (p. 25). Without tangible, dollars and cents support, from state and national legislators, teachers will indeed be "handicapped" (Peterson, 1983) in their efforts to effectively teach all the children for whom they have been given responsibility.

Reforming Pre-Service Training.

Preservice teacher education programs need to be reformatted. What follows here is a representative sample of ideas for reforming pre-service training programs. Readers interested in a more extensive coverage of this issue are referred to Grosenick & Reynolds (1978), and Sharp (1982).

Ryan (1980) advocates extending the length of pre-service programs by requiring a "fifth year" leading to a Master's degree before teachers would be allowed to teach. Stedman (1980) sees a two year master's program, with increased supervised practice, as a minimum qualification for conditional certification as a teacher. He then advocates an additional year of full-time teaching prior to permanent certification.

Some see inclusion of special education courses in regular educator's training as providing at least a partial solution (Ganschow et al., 1984; Vaac 1978). Others advocate meshing the training given to regular and special education teachers, at least certain "core" training for working with students who are mildly handicapped (Crisci, 1981; Haisley & Gilberts, 1978; Kunzweiler, 1982). Stainback and Stainback (1984) argue for elimination of the special and regular education dichotomy and creation of a "unified system of education based on individual student needs. This suggests that mainstreaming concepts not be taught as separate classes, but rather that they be incorporated into the fabric of every class in the teacher training program. "Modular instruction" models which have been implemented in some areas such as the Vermont public schools (Robie, Pierce, Burdett, 1979) and the University of Kansas (Haugh, 1978; Horner, 1977; Tucker & Horner, 1977; Wilcox, 1977). Zigmond and Sansone (1981) suggest that the day of the generalized teacher (e.g., a teacher who teaches everything in first grade), even in elementary

schools, is past. They foresee subject-matter specialists (e.g., math) trained to teach students at all levels of disability.

Preservice training programs are restructured so that, (a) all competencies are taught until they are mastered, (b) elements in preservice training which do not teach competencies are deleted from the program, and (c) the competencies are organized and structured so they can be mastered in a four-year program.

Upgrading Inservice Training

There are currently thousands of practicing teachers who urgently need training, for they are the ones who are struggling right now in dealing with students they were never trained to teach (AACTE, 1980). These teachers need, and in many cases are requesting, inservice training. There is difficulty though, in deciding what competencies to emphasize in teacher inservice training.

Adams, Quintero, Killoran, Striefel, & Frede (1986) synthesized from the education literature some 23 areas of teacher competency essential for mainstreaming. Although these competencies were identified as essential for teaching mainstreamed students, most are also needed for high quality teaching of all students. While this listing of competency areas is certainly not exhaustive, it could be readily adapted into a basis for inservice training programs.

There appear to be three types of inservice training needed for practicing teachers. These are what might be called "general

skills training", "student-specific training", and "problem-focused training". These three types are compared and contrasted in Table 1.

Insert Table 1 about here

All three types are needed to help teachers acquire the increasingly broad range of competencies required of educators. Unfortunately, it appears that much current inservice is limited to "problem-focused training".

A few 1 or 2 hour training sessions at the end of a school day are simply not sufficient to train teachers in anything but isolated fragments of the knowledge or performance aspects of competencies. When such training sessions (1 or 2 hours/day) are continued for extended periods of time many skills can be acquired. Individual reading of journal articles or books may suffice for certain knowledge components, but barely begins to address the performance aspects of the competencies. Teacher participation in 1 or 2 day workshops may help develop both the knowledge components and some of the performance components of the competencies. Workshops, however, suffer from lack of continuity, lack of follow-up, and fragmentation (i.e., learning only isolated fragments of the necessary body of knowledge). In addition, many of the performance aspects are too complex to teach in a purely didactic fashion. They require experiential

learning, and must often be "hand-shaped" preferably in the individual teacher's classroom. Attempting to teach many of the performance components via lectures, readings, or discussions, would be equivalent to teaching piano or swimming by the same methods.

What is required to more adequately meet the needs of practicing teachers is an inservice training program that is comprehensive in scope, sequential, includes guided experience, provides practical and readily usable training, begins with a needs assessment, includes periodic assessment of skills to determine mastery, and allows for follow-up in teachers' own classrooms (Fredericks, 1977). A comprehensive plan should include (a) guided reading, (b) brief (1-2 hour) didactic training, (c) short workshops or mini-classes, (d) specially designed summer-quarter college classes, (e) supervised practica, (f) in-classroom demonstrations and shaping of teacher behaviors, (g) in-classroom consultation with specialists, and (h) consistent, long-term follow-up by trainers. Such a training program should be designed and jointly sponsored by university faculty from special education and regular education departments, and by practicing district teachers with experience in mainstreaming. It would necessitate closer interaction between university staff and teachers in the field. It should include built-in assessment procedures to evaluate efficacy. Teacher trainers would demonstrate in practice such competencies as task

analysis, individualized instruction, behavior modification, and classroom management. The training should be designed to focus on those major areas which have not typically been a part of the training experience of most regular education teachers (e.g., attitudes, behavior modification skills, exceptional conditions). In addition, since trainers will be demonstrating individualized teaching, specific student needs for training could be identified, (the students, in this instance, being practicing teachers).

Systemic Changes Needed to Facilitate Mainstreaming

In order for teachers to effectively mainstream students, certain changes are needed within the larger system of which teachers are a critical part. Such changes should facilitate teacher's efforts for improving the education of all children with and without handicaps. If these needed systemic changes do not occur, teachers will themselves be handicapped in their attempts to implement training. The recommendations which follow outline, in a rather simplistic fashion, what would in actuality be complex processes. Directives such as "should", "ought", and "must" are used rather freely, but readers should recognize that these recommendations are ideals which may be difficult to effectuate in reality. They are offered as useful guidelines. The suggestions are not listed in order of importance or priority, the numbering is simply to aid readability. (A more

detailed explication of these systemic changes is found in Adams, Striefel, Quintero, Killoran, 1985).

1. Teacher pre-service programs should be revised to incorporate the competencies needed for mainstreaming.
2. State education agencies (SEA's) must upgrade teacher certification requirements to guide universities in developing preservice training programs.
3. State and national teacher education associations must acknowledge that: (a) mainstreaming is a reality for today's educator; and (b) there is a significant need for high-quality, comprehensive, and practical teacher training, both pre-service and inservice.
4. State and national teacher associations (in conjunction with appropriate advocacy groups) must organize task-forces and lobbies to secure funding for teacher pre-service and inservice training.
5. Comprehensive inservice training programs,focusing on teacher competencies needed for mainstreaming, must be developed and implemented.
6. District administrators must actively support and facilitate mainstreaming.
7. There must be an effort made to identify the competencies needed by administrators in order for effective mainstreaming to occur. and to provide training for administrators.

8. Mainstreaming must be seen as an ongoing process rather than a discrete event.
9. The roles of special educators must be redefined.
10. Administrators and teachers must identify and implement strategies that increase teacher time for the individual needs of all students (including those who are mainstreamed).
11. Efforts for early identification of children who are handicapped should be promoted, and high-quality early intervention services (pre-school) must be legislatively mandated and adequately funded.
12. Procedures and materials must be developed for preparing parents of children with and without handicaps for mainstreaming.
13. Procedures and materials must be developed for preparing students with and without handicaps for mainstreaming.
14. Procedures and materials must be developed for the preparation and ongoing training of support staff who interact with children who are handicapped.
15. Procedures and materials must be developed for the training and effective utilization of para-professionals, volunteers, and peer tutors who work with students being mainstreamed.

Conclusion and Recommendations

A significant "competency gap" currently exists between the knowledge and skills teachers should have, and those they

actually do have. This gap results from increasing demands placed on teachers, brought about in part by the passage of P.L. 94-142. Pre-service and inservice training programs for teachers have not yet changed and grown sufficiently to prepare educators for the challenges that confront them as they teach students who are substantially handicapped. These challenges can only increase as pressure increases to individualize educational programs for all children.

Teachers, administrators, state education associations, university faculty, and state and national legislators must all be involved in the effort to reduce the competency gap. Pre-service training programs must reflect the reality that mainstreaming necessitates changes in traditional approaches to teaching. Inservice training must be comprehensive rather than piecemeal, must include in-classroom shaping of teacher behaviors, in-classroom consultation with specialists, and long-term follow-up. All of this will, obviously, be possible only with adequate funding. The authors recognize that this ideal may never be completely achieved in reality. But the attempt to define "the way it ought to be" may serve as a guide in attempts to develop more adequate training programs.

This paper strongly advocates that educators at all levels acknowledge the unpleasant reality that they have been inadequately prepared to meet the increasing demands that are expected of teachers. Having acknowledged the reality of the

problem, teachers must then confront the true causal issue at it's root. Pre-service training does not prepare teachers adequately for the new challenges of teaching, and current inservice training is too limited in both quantity and scope to bridge the competency gap.

It will be largely due to a team effort that the existing competency gap is narrowed and eventually eliminated. Legislators, parents, students, administrators, and teachers must all work together for the common goal of improved education for all children, both those with and those without handicaps. Teachers and principals must assume a leading role in this effort, for it is they who are ultimately confronted with the daily challenges of mainstreaming.

Footnotes

[1]If perchance any of the readers do know of such a training program, please write to the authors care of the Developmental Center for Handicapped Persons, UMC 68, Utah State University, Logan, UT 84322.

Author Notes

This publication was supported by Grant No. 009401757, from the Handicapped Children's Early Education Program of the U.S. Department of Education and Grant No. G008430088 of the U.S. Department of Education. However, the opinions expressed herein do not necessarily reflect the position of the U.S. Department of Education and no official endorsement by them should be inferred.

Table 1
THREE TYPES OF INSERVICE TRAINING FOR MAINSTREAMING

GENERAL SKILLS TRAINING (ongoing)	CHILD-FOCUSED TRAINING (pre-mainstreaming)	PROBLEM-FOCUSED TRAINING (post-placement)
a. for all teachers	a. for receiving teacher	a. for any teacher needing help
b. scheduled on a regular basis in response to identified areas for skill development	b. occurs prior to mainstreaming a specific child	b. occurs as needed in response to problem situations
c. extended, long-range (training time measured in weeks or months)	c. short-term, intensive (training time measured in hours or days)	c. short-term, limited (training time measured in minutes or hours)
d. skill centered	d. skill centered	d. problem centered
e. general applicability to many students	e. student specific	e. situation specific
f. aims at over-all upgrading and development of teacher expertise	f. focused on special training necessary for working with a particular student	f. focused on particular problem and situation
g. planned in advance, organized, sequential, responsive to over-all long-range needs	g. planned in advance, organized, responsive to specific anticipated short-range needs	g. planned "on the spot", spontaneous, responsive to immediate needs
h. spans entire teaching career	h. time-limited	h. time-limited
i. assessed via "Teacher Needs Assessment"	i. assessed via MESA	i. teacher self-assessed via "Request for Assistance"
example: A number of teachers at a school all desire training in methods for evaluating student learning -- a series of workshops, over a several month period, are offered on this topic.	example: A teacher needs training in how to recognize and manage occasional seizures in an incoming student, and also how to prepare the other students in the class to respond to a seizure.	example: The students in a class are overly solicitous of a student in a wheelchair, to the point that the student is developing some "helpless" behaviors that are of concern to the teacher.

REFERENCES

A common body of practice for teachers: The challenge of Public Law 94-142 to teacher education. (1980). Washington, DC: The American Association of Colleges of Teacher Education, Washington DC.

Adams, P. R., Quintero, M., Killoran, J., Striefel, S. & Frede, E. (1986). A literature review and synthesis of teacher competencies necessary for effective teaching of mainstreaming students. Unpublished manuscript, Utah State University, Developmental Center for Handicapped Persons.

Adams, P. R., Striefel, S., Quintero, M., & Killoran, J. (1986). Successful mainstreaming: The elimination of common barriers. Unpublished manuscript, Utah State University, Developmental Center for Handicapped Persons.

Alexander, C., & Strain, P. S. (1978). A review of educators' attitudes toward handicapped children and the concept of mainstreaming. Psychology in the Schools, 15, 390-396.

Baker, J. L., & Gottlieb, J. (1980). Attitudes of teachers toward mainstreaming retarded children. In J. Gottlieb (Ed.), Educating mentally retarded persons in the mainstream (pp. 3 - 23). Baltimore: University Park Press.

Behrens, T., & Grosenick, J. K. (1978). Deans' grants projects; Supporting innovations in teacher-education programs. In J. K. Grosenick and M. C. Reynolds (Eds.), Teacher education: Renegotiating roles for mainstreaming (pp. 1-5). Reston, VA: Council for Exceptional Children.

Blackhurst, A. E. (1982). Competencies for teaching mainstreamed students. Theory Into Practice, 21(2), 139-143.

Boyd, F. M., & Jiggets, J. (1977). The mainstreaming of special and regular education teachers through inservice workshops. Education, 98, 165-167.

Byford, E. M. (1979). Mainstreaming: The effect on regular teacher training programs. Journal of Teacher Education, 30(6), 23-24.

Cochrane, P. V., & Westling, D. L., (1977). The principal and mainstreaming: Ten suggestions for success. Educational Leadership, 34, 506-510.

Corrigan, D. C. (1978). Public Law 94-142: A matter of human rights; A call for change in schools and colleges of education. In Grosenick, J. K., and Reynolds, M.C., Teacher education: Renegotiating roles for mainstreaming (pp. 17-29). Reston, VA: Council for Exceptional Children.

Crisci, P. E. (1981). Competencies for mainstreaming: Problems and issues, Education and Training of the Mentally Retarded, 16, 175-182.

Diamond, B. (1979). Myths of mainstreaming. Journal of Learning Disabilities, 12(4), 246-250.

Dixon, B., Shaw, S. F., & Bensky, J. M. (1980). Administrators role in fostering the mental health of special services personnel. Exceptional Children, 47, 30-36.

Flynn, J. R., Gack, R. C., & Sundean, D. A. (1978). Are classroom teachers prepared for mainstreaming? Phi Delta Kappan, 59, 562.

Fredericks, H. D. B., Anderson, R. B., Baldwin, V. L., Grove, D., Moore, W. G., Moore, M., & Beaird, J. H. (1977). The identification of competencies of teachers of the severely handicapped (Grant No. OEG-0-74-2775). Bureau of Education for the Handicapped, Department of Education.

Ganschow, L., Weber, D. B., & Davis, M. (1984). Preservice teacher preparation for mainstreaming. Exceptional Children, 51(1), 74-76.

Gearhart, B. R., and Weishhahn, M. W. (1980). The handicapped student in the regular classroom. St. Louis: C. V. Mosby Co.

Gickling, E. E., Murphy, L. C., & Mallory, D. W. (1979). Teachers Preferences for Resource Services. Exceptional Children, 45, 442-449.

Grosenick, J. K., & Reynolds, M. C. (Eds.). (1978). Teacher education: Renegotiating roles for mainstreaming. Reston, VA: Council for Exceptional Children.

Haisley, F. B., & Gilberts, R. D. (1978). Individual competencies needed to implement P.L.94-142. Journal of Teacher Education, 29(6), 30-33.

Hall, G. E., Loucks, S. F., Rutherford, W. L., & Newlove, B. W. (1975). Levels of use of the innovation: A framework for analyzing innovation adaption. Journal of Teacher Education, 26(1), 52-56.

Haring, N., & Billingsley, F. (1984). Systems-change strategies to ensure the future of integration. In N. Certo, N. Haring, & R. York (Eds.), Public school integration of severely handicapped students (pp. ___-___). Baltimore: Paul H. Brookes Publishing Co.

Haugh, O. (Managing Ed.). (1978). Educating students in least restrictive environments: Instructional preparation for teachers (5 vols.). Lawrence: University of Kansas, School of Education.

Horne, M. D. (1979). Attitudes and mainstreaming: A literature review for school psychologists. Psychology in the Schools, 16, 61-67.

Horner, R. D. (1977). A competency-based approach to preparing teachers of the severely and profoundly handicapped: Perspective II. In E. Sontag (Ed.), Educational programming for the severely and profoundly handicapped (pp. 430-444). Reston, VA: Division on Mental Retardation, The Council for Exceptional Children.

Hudson, F. H., Graham, S., & Warner, M. (1979). Mainstreaming: An experimentation of the attitudes and needs of regular classroom teachers. Learning Disability Quarterly, 2, 58-62.

Johnson, A. B. (1979). The principals role in mainstreaming. Ohio Elementary Principal, 8(1), 25-26.

Jones, P. A statement on mainstreaming. President of the Council for Exceptional Children.

Kaufman, J., & Hallahan, D. (Eds.). (1981). Handbook of special education. Englewood Cliffs, NJ: Prentice Hall.

Keogh, B. K., & Levitt, M. L. (1976). Special education in the mainstream: A confrontation of limitations? Focus on Exceptional Children, 8(1), 1-11.

Kunzweiler, C. (1982). Mainstreaming will fail unless there is a change in professional attitude and institutional structure. Education, 102, 284-288.

Larrivee, B. (1981). Effect of inservice training interests on teacher's attitudes toward mainstreaming. Exceptional Children, 47, 34-39.

Leyser, Y., Abrams, P, & Lipscomb, E. (1982). Modifying attitudes of prospective elementary school teachers toward mainstreaming. Journal for Special Educators, 18, 1-10.

Maple, C. C. (1983). Is special education certification a guarantee of teaching excellence? Exceptional Children, 49(4), 308-313.

Martin, E. W. (1974). Some thoughts on mainstreaming. Exceptional Children, 41, 150-153.

Masat, L. J., & Schack, F. K. (1981). The mainstream teacher: Training is not enough. Principal, 61, 28-30.

McLoughlin, J., & Kelly, D. (1982). Issues facing the resource teacher. Learning Disabilities Quarterly, 5(1), 58-64.

Middleton, E. J., Morsink, C., & Cohen, S. (1979). Program graduates perception of need for training in mainstreaming, Exceptional Children, 46, 256-261.

Paul, J. L., & Warnock, N. J. (1980). Special education: A changing field. The Exceptional Child, 27, 3-28.

Payne, R., & Murray, C. (1974). Principals attitudes toward integration of the handicapped. Exceptional Children, 41, 123-125.

Perkins, S. A. (1979). Problems and issues in special education. Education Canada, 19(3), 32-37.

Peterson, N. L. (1983). Personnel training for mainstreaming young handicapped children. In J. Anderson, & T. Black (Eds.), Mainstreaming in early education (pp. ___-___). Chapel Hill, NC: Technical Assistance Development System.

Powers, D. A. (1983). Mainstreaming and the inservice education of teachers. Exceptional Children, 49(5), 432-439.

Redden, M. R. (1976). An investigation of mainstreaming competencies of regular elementary teachers. Unpublished Doctoral Dissertation, University of Kentucky, Lexington.

Ringlaben, R., & Price, J. (1981). Regular classroom teachers perceptions of mainstreaming effects. Exceptional Children, 47(4), 302-304.

Robie, D. E., Pierce, M. M., & Burdett, C. (1979). Vermont's responsive teacher program: Competency based teacher training, Exceptional Children, 45, 365-367.

Rule, S., Killoran, J., Stowitschek, J., Innocenti, M. Striefel, S., & Boswell, C. (1984). Training materials and support: Factors related to teachers attitudes towrad mainstreaming. Manuscript submitted for publication.

Ryan, K. (1980). Mainstreaming and teacher education: The last straw. In A common body of practice for teachers: The challenge of Public Law 94-142 to teacher education (pp. 71-89). Washington, DC: The American Association of Colleges of Teacher Education.

Salend, S., & Johns, J. (1983). A tale of two teachers: Changing teacher commitment to mainstreaming. Teaching Exceptional Children, 15(2), 82-85.

Sharp, B. L. (1982a). Dean's grants projects: Challenge and change in teacher education. Washington, DC: American Association of Colleges for Teacher Education.

Shotel, J. R., Iano, R. P., & McGettigan, J. F. (1972). Teacher attitudes associated with handicapped children. Exceptional Children, 38, 677-683.

Sprinthall, N. A. (1978). Mainstreaming and teacher re-education: A rationale for reform. In J. K. Grosenick and M. C. Reynolds (Eds.), Teacher education: Renegotiating roles for mainstreaming (pp. 359-368). Reston, VA: Council for Exceptional Children.

Stainback, S., & Stainback, W. (1982). Influencing the attitudes of regular class teachers about the education of severely retarded students. Education and Training of the Mentally Retarded, 17, 88-92.

Stainback, W., & Stainback, S. (1984). A rationale for the merger of special and regular education. Exceptional Children, 51, 102-111.

Stainback, S., Stainback, W., Strathe, M., & Dedrick, C. (1983). Preparing regular classroom teachers for the integration of severely handicapped students: An experimental study. Education and Training of the Mentally Retarded, 18, 204-209.

Stamm, J. M. (1980). Teacher competencies: Recommendations for personnel preparation. Teacher Education and Special Education, 3(1), 52-57.

Stedman, D. J. (1980). Possible effects of Public Law 94-142 on the future of teacher education. In A common body of practice for teachers: The challenge of Public Law 94-142 to teacher education (pp. 90-100). Washington, DC: The American Association of College of Teacher Education.

Stephens, T. M., & Braun, B. L. (1980). Measures of regular classroom teachers' attitudes toward handicapped children. Exceptional Children, 46, 292-294.

Taylor, S. J. (1982). From segregation to integration: Strategies for integrating severely handicapped students in normal school and community settings. Journal of the Association for the Severely Handicapped, 8, 42-49.

Tucker, D. J. & Horner, R. D. (1977). Competency-based training of paraprofessional teaching associates for education of the severely and profoundly handicapped. In E. Sontag (Ed.), Educational programming for the severely and profoundly handicapped (pp. 405-417). Reston, VA: Division on Mental Retardation, The Council for Exceptional Children.

Vaac, N. A. (1978). Preservice programs deficient in special education courses. Journal of Teacher Education, 29(6), 42-43.

Vaac, N. A., & Kirst, N. (1977). Emotionally disturbed children and regular classroom teachers. Elementary School Journal, 77, 309-317.

Vandivier, P. L., & Vandivier, S. C. (1981). Teacher attitude toward mainstreaming exceptional students. Journal for Special Educators, 17, 381-388.

Wilcox, B. (1977). A competency-based approach to preparing teachers of the severely and profoundly handicapped: Perspective I. In E. Sontag (Ed.), Educational programming for the severely and profoundly handicapped (pp. 418-429). Reston, VA: Division on Mental Retardation, The Council for Exceptional Children.

Williams, R. J., & Algozzine, B. (1979). Teacher's attitudes toward mainstreaming. Elementary School Journal, 80, 63-67.

Zigmond, N., & Sansone, J. (1981). What we know about mainstreaming from experience. In P. Bates (Ed.), Mainstreaming: Our current knowledge base (pp. 97-111). Minneapolis: University of Minnesota, National Support Systems Project.